

Center for Industrial Imaging

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Background

This center was established in 1995 to identify markets and commercialize technologies in proven geoscience applications and other areas, e.g. ceramics, metallurgy, and medical imaging.

Technology Development Progress

The core technology of the center is Petrographic Image Analysis (PIA), which comprises image acquisition, image processing pattern recognition/data analysis and links to physical models. Each component requires specialized hardware, software and expertise. The pattern recognition procedure within PIA has proven useful in chemical fingerprinting in a variety of geoscience/environmental applications. The center has begun to explore areas outside geoscience that have a larger economic potential, namely the medical imaging arena.



Highlights and Accomplishments

The center is continuing in its effort to integrate its technologies into the Earth Science and Resources Institute technical programs. The center is involved in a demonstration project incorporating PIA into a multidisciplinary petroleum reservoir in Azerbaijan. This project is sponsored by a consortium of petroleum companies, which has provided a grant of \$400,000. In addition, other demonstration projects include: geochemical fingerprinting of crude oils, offshore Gulf of Mexico; chemical fingerprinting of fluid inclusions in rocks from geothermal energy study and chemical fingerprinting of groundwater data from Hill Air Force Base.

The center is exploring the application of its technologies in non-geoscience areas, e.g. medical imaging (market research is in progress). A pilot study applying the imaging technology to analysis of prostate cancer biopsy slides is also in progress.

The center has been granted the Unocal Corporation's Integrated Paleontological System Software, a petroleum industry related workstation application, for further research, development and commercialization.

Summary Data:

Current

1995-96 Award	\$100,000
Matching Funds	\$405,840
Patents Pending	0
Patents Issued	0
License Agreements	0
Spin-off Companies	0
Companies Assisted	37
Industry Jobs	0
Center Jobs	4

Cumulative

Awards	\$100,000
Matching Funds	\$ 405,840
Patents Issued	0
License Agreements	0
Spin-off Companies	0